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## Attitudes of Graduate Social Work Students Toward the Disabled : use of Yuker's Disabled Persons Scale

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ATTITUDES OF GRADUATE SOCIAL WORK STUDENTS  
TOWARD THE DISABLED: USE OF YUKER'S  
DISABLED PERSONS SCALE

by

DONNA MEYER WEGGENMAN

A practicum submitted in partial fulfillment of the  
requirements for the degree of

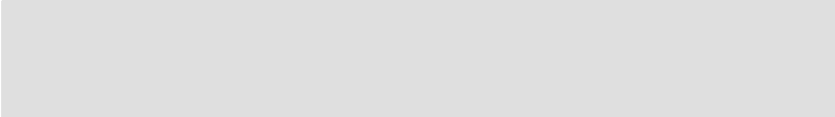
MASTER OF SOCIAL WORK

Portland State University

1977

The members of the Committee approve the practicum of  
Donna Meyer Weggenman presented March 29, 1977.

  
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## CHAPTER I

### INTRODUCTION

According to a front page editorial in the Wall Street Journal of January 27, 1976, the major barriers to employment of eight million disabled people are attitudinal.<sup>1</sup> Understanding of attitudes, their sources, and their dynamics must be achieved in order to progress toward a goal of acceptance of handicapped persons as full and equal partners in our society.

Attitudes are emotional reactions to an object and are either positive or negative. As a result of these positive or negative reactions, an individual behaves in a certain manner toward the object of the attitude.<sup>2</sup>

Attitudes directed toward disabled people will be the subject of this study. When discussing the concept of "handicapped," there are two types which must be considered, physical and mental. This dichotomy should also be applied to the concept "disabled." In this study the terms handicapped and disabled were used interchangeably and meant to describe those persons primarily with physical impairment.

The purpose of this study is to provide descriptive information about graduate Social Work students' attitudes toward the disabled at Portland State University. The

research design is an exploratory descriptive one, utilizing comparative data obtained from students both in social work and the allied health professions. A total of fifty-nine students enrolled in the first year of a two-year Master in Social Work Curriculum at Portland State University participated in the study. The comparison group consisted of a group of Allied Health Students at Rancho Los Amigos Hospital in Downey, California who had taken the attitudinal test prior to an eight-week program of Interdisciplinary Education. The Allied Health students included individuals from six disciplines: Social Work, Physical Therapy, Occupational Therapy, Medicine, Nursing, and Hospital Administration. The need for this study was to examine the nature of the attitude of students at Portland State University toward the disabled, and determine whether or not a needs awareness training program of the special problems of handicapped were indicated.

In our contemporary society, the profession of social work must deal with a rapidly increasing minority consisting of handicapped individuals and/or their families. With this in mind, the following study is presented in order to assist social workers in gathering information about themselves in order to better serve the community.

## CHAPTER II

### RELEVANT LITERATURE

The literature which provided the foundation for this study was derived from pertinent books, journal articles, academic research and studies, and government documents and policies. Because attitudes toward the disabled is a relatively new field, most of the literature has only been available in the last twenty years. The literature will be discussed under the following three captions: (1) disability defined, (2) attitudes toward the physically disabled, and (3) testing of attitudes using the Attitudes Towards the Disabled Test.

#### Disability Defined

Written literature concerning the discrimination felt by groups of people who are considered disabled is voluminous. The U.S. Rehabilitation Act of 1973, which was designed to provide employment opportunities at the Federal level for qualified individuals with physical (including sensory) and mental handicaps, defines a handicap in this manner: "any impairment which substantially limits one or more of a person's major life activities. Major life

activities means any mental or physical function which, if impaired, creates a substantial barrier to employment."<sup>3</sup>

Further definitions are available through the Oregon Fair Employment Practice Act and from a study by Betty Yerxa. The Oregon Fair Employment Practice Act of 1973 defines physical or mental handicap under Section 659.400 as a

. . . physical or mental disability, including but not limited to sensory disabilities and resulting in a handicap unrelated to a person's ability to perform the duties of a particular job or position for which he would otherwise be eligible and qualified for employment or promotion, or a handicap unrelated to a person's ability to acquire, rent or maintain property.<sup>4</sup>

Yerxa, in a study of an instructional program for changing attitudes toward the physically disabled, defined the physically disabled as those persons who deviate physically from the "normal" due to the presence of one or more of the following conditions: paralysis, blindness, amputation, burns, deformity, obesity, deafness, cosmetic conditions, cancer, heart disease or epilepsy.<sup>5</sup> The following section will present important findings concerning attitudes toward the physically disabled.

#### Attitudes Toward the Physically Disabled

During a seminar discussing patient care among rehabilitation personnel,<sup>6</sup> Lewis stated that: "Attitudes on the part of the able-bodied public about persons with physical disabilities range from complete avoidance which perpetuates

discrimination to an overly protective mother attitude." The feeling expressed by the handicapped at this seminar was that people either overreact or underreact. Kolb, who emphasizes the positive and enduring aspects of the handicapped individual's personality rather than the negative-emotional qualities, describes society as focusing on pity for the disabled individual and that isolation, sorrow, and frustration are the primary target, especially for the purpose of fund raising.<sup>7</sup>

In describing the barrier to optimal adjustment that the disabled encounter when seeking hospitalization and accident insurance, Greer, et al. said that many insurance policies simply exclude coverage for "pre-existing conditions."<sup>8</sup> In hospitalization policies, many contradictory rulings exist which usually result in the disabled person being prepared for litigation to recover expenses for hospitalization for illnesses that might be construed to be related to an excluded condition.

In an article describing employment of the disabled in Great Britain, Obe subjectively feels there is less discrimination today than in the past, and that a changing attitude toward the handicapped is being evidenced by greater employment.<sup>9</sup> Nagy makes special note of the denial of services to the handicapped and the need for affirmative action.<sup>10</sup> The Washington State Law Against Discrimination and the Oregon Fair Employment Practice Act, to cite two laws, guarantee

the physically and mentally handicapped the right to full enjoyment of any of the accommodations, advantages, facilities or privileges of any place of public resort, accommodation, assemblage or amusement, as well as the right to obtain and hold employment without discrimination.<sup>11</sup>

Another concept that is found in the literature on handicapped is that of "normalization," a practical approach of dealing with handicapped persons. Observing the discrimination of handicapped individuals led Dybwad in 1973 to introduce the concept of normalization. In 1975, Park defined normalization as a rational attempt to deal with the very conditions that have tended to deepen and reinforce prejudice and tended to set the severely handicapped apart from the rest of society.<sup>12</sup> Park advocates a system of "normalization" whereby: (1) the wrongs of the past are righted, (2) the handicapped brought back into the mainstream of society, and (3) a normal environment developed as a risk process that involves the elimination of the sheltered life and substituting for it the possibility of failure as well as the possibility of rewards.

Kleck found that a physical disability served as an important determiner of the social behavior of physically normal persons when interacting with the disabled, distorting that behavior in consistent ways. When interacting with someone they believed to be physically disabled, normal college and high school students showed inhibition of gestural



activity,<sup>13</sup> significantly increased subjective feelings of discomfort,<sup>14</sup> a tendency to place themselves at a significantly greater social distance,<sup>15</sup> and an increased psychogalvanic skin response.<sup>16</sup>

Goffman concluded that persons with physical disabilities are "stigmatized" by society since they are discriminated against, have a wide range of imperfections imputed to them and are reduced in the life chances open to them.<sup>17</sup>

In addition to studies showing the presence of negative attitudes toward the physically disabled, a few studies have identified a "halo" effect. Some physically normal persons tend to rate the disabled favorably on all personality rating scales, just as other subjects rate them consistently in unfavorable ways. Barker, in commenting about these findings, stated, "there is a suggestion that the physically handicapped are supposed to be 'better' than normal persons in a number of respects."<sup>18</sup>

Wright reported other indications of negative attitudes toward the disabled.<sup>19</sup> Employment opportunities, especially on the higher levels, are sharply curtailed. Physical fitness standards which are established for all employees frequently eliminate the disabled worker, even if he is able to do the job. Social and recreational activities are restricted. The nondisabled frequently express a reluctance to date or marry a physically disabled person. In a study of fifty college students, Wright found that

65 per cent would not marry a person who had an amputated leg; 85 per cent said they would not marry a deaf person.<sup>20</sup> She concluded that "many members of the favored majority wish and frequently insist that the minority group member (disabled person) not only know his place but keep his place . . . that is, that he feel and act like a less fortunate being."<sup>21</sup>

Richardson demonstrated that physical disability was such a powerful stimulus that it largely masked the existence of a racial preference in determining the rate of pictures from most liked to least liked. The picture of the nonhandicapped person was consistently rated more "liked" than that of a handicapped person regardless of the race of the person in the stimulus picture. This preference was found among persons from all racial groups.<sup>22</sup>

In summarizing his studies of the cultural uniformity of children's reactions to physical disability, Richardson stated,

There is considerable evidence in our culture of a depreciating evaluation of persons with physical disabilities. This evaluation is commonly found in the mass media in which cultural stereotypes of physical beauty are identified with goodness and those of physical ugliness with evil.<sup>23</sup>

Whiteman and Lukoff studied attitudes toward blindness and other physical handicaps and implicated more subtle variations in attitudes.<sup>24</sup> Using Social Worker students as subjects, it was found that blindness was evaluated as being

more serious and anxiety provoking than other physical handicaps. Furthermore, there was a rather clear distinction in attitudes toward "blindness" and toward "blind persons," the condition of blindness being evaluated much more negatively than blind persons. They point out that the subjects' evaluation of blindness was far more severe than that of physical handicap in general, but there was no apparent difference in evaluations of blind and physically handicapped persons.

Gellman observed that professional rehabilitation personnel displayed prejudicial attitudes toward the disabled. Such attitudes include perceiving the disabled person as the pariah or as an economic, social or psychological liability. He further states that the social role of a handicapped person is characterized by relatively low status and that normal people perceive the disabled as relatively nonproductive. In his opinion, these attitudes accentuate the status distinction between the therapist and the patient in all phases of the rehabilitation process so that treatment becomes more important than the patient.<sup>25</sup>

McDaniel states the belief that disabled are subject to prejudice along with other minorities and are assigned inferior status is an oversimplification. While attempting to define the variables of prejudice toward the disabled, McDaniel concludes that: (1) there is no universal stereotype of physically disabled, (2) ethnocentric attitudes

extend to include the physically disabled, and (3) the degree of acceptance or positive attitudes toward the disabled varies with sex, age and maturity and possibly with the level of education and sophistication as well.<sup>26</sup> In summation, it is evident that disabled persons are often perceived as "different" in our society and are frequently stereotyped by so-called normals according to preconceived notions.

#### Testing of Attitudes Using Attitude Toward Disabled Person Scale

Prior to 1959 when studies dealing with attitudes toward the disabled were published, makeshift or "one shot" instruments to measure attitudes toward that particular disability were reported.<sup>27</sup> Since 1959 the most widely used instrument to measure attitudes toward the disabled has been the Attitudes Toward Disabled Scale (ATDP) developed by Yuker and Block.<sup>28</sup> The underlying assumption of this scale is that disabled persons could be viewed as either the "same as" or "different from" physically normal persons. It focuses upon the general concept of disability rather than being concerned with specific types of disabilities. Over the years, the ATDP has become one of the most widely used instruments of its kind. The Measurement of Attitude Toward Disabled Persons monograph by Yuker, Block, and Youngg received the research award of the American Rehabilitation

Counseling Association in 1970 "in recognition of an outstanding contribution to research literature."<sup>29</sup>

After reviewing the many studies conducted using the ATDP, Yuker, Block, and Youngg made some general observations:

1. There is a positive correlation between increased contacts with disabled persons and more positive attitudes on the part of the nondisabled. However, certain types of contact appear to produce more positive attitudes than others. For example, more positive attitudes were found to be related to close personal contact, social contact and contact in an educational or employment setting. Less positive attitudes were found to be related to the extent of contact in a medical or rehabilitation setting and possibly to contact with a disabled sibling.<sup>30</sup>
2. Data suggest that acceptance of the physically disabled is positively related to acceptance of people who are different from respondents, including such groups as the mentally ill, the aged, and a variety of ethnic groups.<sup>31</sup>
3. In general, respondents with a more positive self-concept tend to be more accepting of the disabled.<sup>32</sup>

4. It has been demonstrated that there exists an increase in acceptance of physical disability with increasing levels of completed formal education.<sup>33</sup>
5. Females show greater acceptance of physical disability than do males in both disabled and non-disabled populations.<sup>34</sup>
6. There has been generally insufficient data to draw conclusions between the relationships of attitudes toward disability and subjects' marital status, socio-economic status, nationality and place of residence (urban or rural environment).<sup>35</sup>

To summarize, considerable documentation exists to conclude that negative attitudes toward the physically disabled such as avoidance, discomfort, and rejection are common among lay persons in our society. Progress has been made in identifying and measuring the components of these attitudes. The ATDP as a measure of attitudes, was developed by Yuker and Block and has been widely used in demonstrating the existence of positive attitudes among various groups of people.

## CHAPTER III

### METHODS

In order to achieve the purpose of providing descriptive data on the attitudes of Social Work students at Portland State University, the research was designed to incorporate the Attitudes Toward the Disabled Person Scale. The methodological approach for this study will be discussed under the following captions: (1) Research Design, (2) Research Questions, (3) Sources of Data, (4) Research Instruments, (5) Data Collection, and (6) Data Analysis.

#### Research Design

The design selected for this study was the Non-Equivalent Comparison Group Design. This design was chosen because of the comparison between the ATDP scores of the first year Social Work students at Portland State University and a group of Allied Health students at Rancho Los Amigos Hospital in Downey, California. There was not a random assignment to the Allied Health program and all first year Portland State University Social Work students were asked to participate.

### Research Questions

The major research question of this study asked if there were a difference in attitudes toward the disabled between first year graduate Social Work students at Portland State University and the Allied Health students at Rancho Los Amigos Hospital. Other research questions pertaining to the experimental group were:

1. Is there a difference in attitudes toward the disabled between the male and female ATDP scores among the first year students in Social Work at Portland State University?
2. Did the results of the ATDP of first year graduate Social Work students at Portland State University differ from the established normative data for nondisabled persons?

### Sources of Data

The population for this research project was drawn from two sources: (1) First year graduate students in the School of Social Work at Portland State University, and (2) Allied Health students in the Interdisciplinary Comprehensive Clinical Education Program at Rancho Los Amigos Hospital in Downey, California.

There were sixty-one first year graduate Social Work students at Portland State University who participated in the study. The ages of the Social Work students ranged from



twenty-two to fifty-eight years. This group included twenty-five males and thirty-six females. None of the students had any obvious physical disability.

The Rancho Los Amigos Hospital (RLAH) Allied Health Interdisciplinary Education Program was developed by an interdisciplinary Allied Health administrative committee co-chaired by Elizabeth Yerxa, an educator, and John Beeston, a physician at the University of Southern California School of Medicine, Project Director of the Commonwealth Fund Grant for interdisciplinary education awarded to the School of Medicine. The resources were combined from the Allied Health Special Project Grant and a Commonwealth Fund.<sup>36</sup>

The RLAH/University of Southern California Allied Health Interdisciplinary Education Program was designed to teach effective teamwork among six disciplines in two eight-week programs during 1974 and 1975 involving students from administration, nursing, medicine, social work, occupational therapy, and physical therapy.<sup>37</sup>

The program involved both education and research. Objective and subjective measurements of the effects of the program upon students and faculty learning were administered and analyzed at the conclusion of the program.<sup>38</sup>

The Allied Health Project was conducted at Rancho Los Amigos Hospital which is a 750 bed rehabilitation and teaching hospital located within the Los Angeles Metropolitan area. The hospital is part of the Los Angeles

County Health Service System and is affiliated with the University of Southern California (USC) Medical School.

Yerxa administered the ATDP to two groups of students at RLAH. The experimental or Allied Health Group consisted of fifty-one students chosen by their respective schools to participate in the Allied Health Interdisciplinary Education Program in 1974 and 1975. A control group consisted of students who did not participate in the program. The control group members were matched as closely as possible to the program participants according to professional discipline, academic level, clinical experience and time at RLAH.<sup>39</sup> The Allied Health Group Pre-test ATDP score was  $112.5 \pm 21.3$  and a Post-test score of  $120.0 \pm 22.6$ . The control group which consisted of twenty-seven students, had a Pre-test score of  $117.5 \pm 18.0$  and a Post-test of  $125.4 \pm 18.3$  (see Table I). The attitudes toward the disabled of the Allied Health students significantly improved ( $p < .005$ ) for both control and experimental groups.<sup>40</sup>

TABLE I  
ALLIED HEALTH STUDENTS AT RANCHO  
LOS AMIGOS HOSPITAL<sup>41</sup>  
ATDP RESULTS

	N	Pre-test		Post-test	
		Mean	Standard Deviation	Mean	Deviation
Experimental Group . . . . .	51	112.5	21.3	120.0	22.6
Control Group . . . . .	27	117.5	18.0	125.4	18.3

In summary, the Allied Health Interdisciplinary Education Program at RLAH involved students from various health disciplines and provided an intense program of team effectiveness associated with clinical education. One of the instruments used by the program investigators was the ATDP, which was administered to a total of fifty-one students in the two eight-week sessions. The test was given during the first week (Pre-test) and during the last week (Post-test) of the programs. The results are contained in Table I.

#### Research Instruments

Yuker's Measurement of Attitudes Toward the Disabled Person (ATDP) Form A, R-D-834, Rehabilitation Series (see Appendices A and B), is a thirty-item attitudinal scale based

upon a one-dimensional (positive-negative) concept of attitudes toward the physically disabled. The respondent indicated his/her degree of agreement with the thirty statements about the disabled person by responding on a six point scale from "I agree very much," to "I disagree very much." The maximum score attainable is 180 and the minimum score is 0. A relatively low score suggests that the respondent perceives disabled persons different from physically normal persons. A high score indicates that the respondent perceives disabled persons as not being different from the physically normal.<sup>42</sup>

The authors of the scale believe that nondisabled respondents would not identify with the disabled but would use the group as a frame of reference. Based on this assumption, scores on the ATDP could be interpreted in terms of acceptance of or prejudice toward disabled persons. The items were based upon the assumption that the respondent either accepts the disabled as the "same" as everyone else or views them as "different."<sup>43</sup>

Administering the ATDP to the Social Work students included the researcher reading the test instructions aloud. The subjects were requested to signify on the answer sheet how they felt about the statements related to disabled persons. No questions were answered concerning the individual statements. It was emphasized that every statement must be responded to and neutral responses could not be given. The

subjects were requested to include their age and sex on the answer sheet. All respondents were guaranteed anonymity.

Normative Data. The results established through the Human Resources Research and Training Institute from many different studies using ATDP Form A, are  $106.65 \pm 20.73$  for nondisabled males and  $114.18 \pm 20.48$  for nondisabled females. (See Table II.)<sup>44</sup>

TABLE II  
NORMATIVE DATA: ATTITUDE TOWARD  
DISABLED PERSON  
FORM A

Sex	Mean	Standard Deviation	N
Male	106.65	20.73	337
Female	114.18	20.48	405

Reliability. Test-retest reliability for the ATDP was .78 over a two-week interval in one study of eighty-four subjects. Since the scale contains only thirty items, such reliability is comparable with that found with other attitudinal scales. Split half reliability ranged from .73 to .89 in a series of six studies conducted by Yuker.<sup>45</sup>

Validity. Evidence provided for validity was based largely on construct validity correlating ATDP scores with other variables which would be expected to show predictable relationships. Szuhuay correlated scores on Form A of ATDP

with scores on two forms of the Adult Attitude Toward the Physically Disabled Scale (AATPDS). For a group of twenty-five persons, a significant correlation of  $-.72$  for Form A of the Adult Attitude Toward the Physically Disabled Scale was obtained. The negative correlation was due to differences in scoring procedures for the two scales.<sup>46</sup>

Knittel correlated ATDP scores with Auvenshine's Attitude Toward Severely Disabled Students scale and obtained significant correlations of  $.64$  and  $.52$ .<sup>47</sup>

Some of the measures of attitudes toward disability with which the ATDP has been correlated have been measures of social distance or feelings in the presence of disabled persons. Siller obtained correlations of  $-.34$  ( $p < .01$ ),  $-.30$  ( $p < .01$ ), and  $-.16$  ( $p < .05$ ) for groups of over two hundred high school, college and junior high school students, respectively.<sup>48</sup> In a study of adults and late adolescents, Siller and Chipman reported a significant correlation of  $.30$  ( $.05$  level) between ATDP scores and scores on a measure of social distance from the disabled. Siller and Chipman also found a correlation of  $.62$  between the ATDP and their "general acceptance of disabled" scores.<sup>49</sup>

Chesler correlated ATDP scores with four measures of prejudice toward various minority groups. The correlations were all statistically significant beyond the  $.01$  level and ranged from  $-.40$  to  $-.46$ .<sup>50</sup> Based on this and other studies reporting a positive relationship between nonaccepting

attitudes toward disabled persons and attitudes of prejudice toward other minority groups, Yuker concluded that attitudes toward disabled persons appear to be congruent with other attitudes indicative either of prejudice or acceptance of out group members.<sup>51</sup>

### Data Collection

The Attitude Toward the Disabled Test was completed by sixty-one first year graduate Social Work students at Portland State University on May 11 and 12, 1976. The test was given at the completion of four separate Social Work (SW533) classes. Permission for administration of the ATDP was granted by the instructors. After explanation of the test, the students were asked to participate in the study. Although a few students voiced opposition to being research subjects, most of the Social Work students were willing to take the ATDP test, and all students in attendance completed it. The students were not under any obligation to participate. No student took the test twice; however, not all students were in attendance: four students were not available to take the test and three students did not have time due to a previous commitment. No attempt was made to contact the students not in attendance. Each group was asked to answer the questions as best they could. The total test time was approximately fifteen minutes.

The tests were scored according to the method of Yuker, Block, and Youngg. Two of the tests were declared

invalid because one subject had five unanswered questions and the other reported confusion in the responses. This resulted in a total of fifty-nine scorable ATDP tests.

### Data Analysis

According to Yuker (1970) the first step in scoring the ATDP was to change the signs of all the items with positive wording.<sup>52</sup> These positive items indicated that disabled persons were not "different" from nondisabled persons (Appendix C). Having changed the signs of the positive items, the algebraic sum of all the item scores was obtained. The sign of the sum was then reversed, from negative to positive or positive to negative, as the case may be. The total scores obtained in this manner may range from -90 to +90. To eliminate negative values, a constant of 90 was then added to make all the scores positive. The resulting possible score then ranged from 0 to 180. Yuker felt that if more than 10 per cent or four items were left blank, the test was not scorable. If fewer than four items were omitted, the completed items were scored as usual with the constant of 90 added to eliminate negative values. Yuker stated that this was equivalent to assigning a neutral value to the omitted items. All the tests were scored using this method.

Following scoring of the tests, the mean, standard deviation and range were obtained for the Portland State



University Social Work students. Data were compiled separately for males and females; also three age groups were identified: 20-24, 25-29, and 30 and over. The statistical analysis of choice was a t-test comparing the Social Work student scores with the Allied Health student scores, and comparing the male and female Social Work student scores with the normative data established by Yuker. A significance level of .05 was chosen. The results of these findings are contained in the following chapter.

#### Study Limitations

The limitations of this study which may have influenced the results were several. The ATDP instrument which was administered to the Portland State University Social Work students was limited by the word selection of the test's authors. The effect of the wording was difficult to assess. When the ATDP was administered to the Social Work students, the students were aware that the test was an attitudinal scale. Some subjects may have felt this limitation and responded more desirable rather than how they actually felt. Another limitation was that the subjects were aware that they were participating in a fellow student's research project. The exact influence of these limitations was not known. Also there may have been other limitations which were not identified. The influence of these limitations are noted in the following chapter which presents the results of the study.

## CHAPTER IV

### RESULTS

Following administration of the ATDP to the Social Work students, the test was scored and the results were compiled according to the previously described methodology. Presentation of the results of the ATDP will be given in the following order: (1) results of the Portland State University first year graduate Social Work students, (2) demographic results of those students, (3) comparison of these results with the normative data established by Yuker, Block, and Youngg and the scores of the Allied Health students at Rancho Los Amigos Hospital.

#### Social Work Students

As previously described in Chapter III, a relatively low score on the ATDP indicates that the respondent perceives disabled persons as different from physically normal persons. A high score indicates that the respondent perceives disabled persons as not being different from non-disabled persons.<sup>53</sup>

There were fifty-nine Social Work students who completed the ATDP test, thirty-four women and twenty-five men (see Table III). The mean age of all of the subjects was

29.0 years. The scores ranged from a low of 89 to a high of 167. As noted previously, the maximum possible score attainable on this test is 180 and the lowest possible is 0. For the entire group there was a mean of 128.1 and a standard deviation of 22.3, all of the scores are available in Appendix D.

### Demographic

Sex. The twenty-five male Social Work students who completed the ATDP test had the same range of scores as the entire group, 89 to 167 (see Table III). The mean age of the male subjects was 27.6 years. The mean score of the male subjects' test was 130.0 with a standard deviation of 22.8.

The thirty-four female Social Work students had a mean age of 30.5 years and recorded scores ranging from 90 to 165 (see Table III). The mean score for the female subjects was 126.8 and the standard deviation was 21.8

TABLE III  
ATDP SCORES OF MALE AND FEMALE  
SOCIAL WORK STUDENTS

	N	Mean Age	Mean and Standard Deviation	Range
Males	25	27.6	130.0 $\pm$ 22.8	89-167
Females	34	30.5	126.8 $\pm$ 21.8	90-165
Totals	59	29.0	128.1 $\pm$ 22.3	89-167

Age. The fifty-nine subjects were divided into three groups according to age, the groups were twenty to twenty-four years, twenty-five to twenty-nine years, and thirty years and over (see Table IV). The youngest group ranged from twenty to twenty-four years and included fourteen subjects, five males and nine females. The scores for this group ranged from 96 to 148 with a mean score of 121.2 and a standard deviation of 13.1.

The second group ranged from twenty-five to twenty-nine years and consisted of twenty-five subjects, thirteen men and twelve women. This group recorded a mean score of 128.9 and a standard deviation of 22.4. The scores of the subjects in the twenty-five to twenty-nine year group ranged from 91 to 165.

The final age group contained thirteen females and seven males who were thirty years and older. The scores of

this group ranged from 89 to 167 with a mean score of 132.0 and a standard deviation of 25.9.

TABLE IV  
MEAN SCORES OF THREE AGE GROUPS OF  
SOCIAL WORK STUDENTS

Age (years)	N	Mean and Standard Deviation	Range
20-24	14	121.2 $\pm$ 13.1	96-148
25-29	25	128.9 $\pm$ 22.4	91-165
30 and over	20	132.0 $\pm$ 25.9	89-167

#### Comparisons

Social Work Students and Allied Health Students. To assess the meaning of the difference between the mean score of 128.1 for Social Work graduate students at Portland State University and the pre-test mean score of 112.5 for the Allied Health students at Rancho Los Amigos Hospital, a t-test was used (see Table V). The resultant t-score was 3.71 (degrees of freedom = 110) which was significant ( $p < .001$ ). A t-score of 1.98 would have been significant at the .05 level.

TABLE V  
T-TEST COMPARING ATDP SCORES OF PORTLAND STATE  
UNIVERSITY STUDENTS WITH ALLIED  
HEALTH STUDENTS AND YUKER'S  
NORMATIVE DATA

Group	Group	Degrees of Freedom	t-score	p
Portland State University students  n = 59 $\bar{x}$ = 128.1	Allied Health students  n = 51 $\bar{x}$ = 112.5	110	3.7*	<.001
Male Portland State Univer- sity Social Work students  n = 25 $\bar{x}$ = 130.0	Yuker's Nor- mative Data for Males  n = 337 $\bar{x}$ = 106.6	24	5.0*	<.001
Female Portland State Univer- sity Social Work students  n = 34 $\bar{x}$ = 126.8	Yuker's Nor- mative Data for Females  n = 405 $\bar{x}$ = 114.2	33	3.3*	<.01

\*Significant

Social Work Students and Normative Data. The mean score of 130.0 for the male subjects from the Portland State University Social Work students was compared to the mean of 106.6 established by Yuker as the normative score for males

( $n = 337$ )<sup>54</sup> (see Table V). The resultant t-score was 5.01 (degree of freedom = 24) which was significant ( $p < .001$ ).

A final comparison using a t-test was conducted using the mean score of 126.8 of the female Social Work students and the normative score of 114.2 ( $n = 405$ ) established by Yuker for females<sup>55</sup> (see Table V). Again this test was significant ( $p < .01$ ) with a t-score of 3.32 (degrees of freedom = 33).

## CHAPTER V

### INTERPRETATIONS AND RECOMMENDATIONS

The previous chapter presented the results of the ATDP scores of the Portland State University Social Work students and compared these results with the Allied Health student scores and the normative data. This chapter will examine implications of the ATDP and present recommendations. The order of presentation will be as follows: (1) the male and female scores, (2) the scores of three age groups, (3) the Social Work student scores compared to the normative data of Yuker and the scores of the Allied Health students at Rancho Los Amigos Hospital, and (4) recommendations.

#### Male and Female Scores

As can be seen from Table III, the mean ATDP score for male Social Work students was 130.0 and the mean score for females, 126.8. The male sample included both the lowest score (89) and the highest score (167) recorded by the Social Work students; the male standard deviation (22.8) was only slightly greater than that of the female Social Work students' standard deviation (21.8). The results indicate that male Social Work students had a slightly more positive attitude toward the physically disabled than female Social Work students. This is in contrast to Yuker who, after



reviewing the results of many studies, concluded that females show a greater acceptance of physical disability than do males.<sup>56</sup> One explanation for the male Social Work students scoring slightly higher than the female Social Work students may be that the men had greater past exposure to the handicapped. The scope of this study did not investigate any of the past experiences of the subjects. Thus, a definitive explanation for this difference was not attainable.

### Age

The mean scores for the age group twenty to twenty-four years (121.2), twenty-five to twenty-nine years (128.9) and over thirty years (132.0) show a gradual increase (see Table IV). Although it is tempting to state that the older Social Work students had a more positive attitude toward the disabled, there are certain other factors which must be taken into consideration. One of these factors is seen when comparing male and female subjects. Although the male subjects had a higher mean score, the mean age of the males was 2.9 years less than the females. Therefore, the younger age groups should have scored higher, based on the male-female comparison. Also, the thirty year and older group of students not only had the highest mean but individuals within this group recorded both the highest (167) and the lowest (89) scores; this group also had the largest standard deviation. An explanation for the increase in mean scores

with the increasing age groups was that the attitudes expressed were based upon past exposure and/or experience with the disabled or some other unidentified factor, not age.

This study did not quantify past experience or contact with disabled people which is a variable that needs further investigation before making conclusions regarding subjects' age and attitudes toward the physically disabled. This was in concurrence with the findings of Yuker where there appeared to be no significant relationship between age and attitudes toward the disabled because of contaminating variables.<sup>57</sup>

#### Comparison of Results

A comparison of the mean score for the Allied Health students at Rancho Los Amigos Hospital (112.5) and the mean score of first year Social Work students at Portland State University (128.1) using a t-test resulted in a significant ( $p < .001$ ) t-score of 3.71 (see Table V). This indicates that the Social Work students had a more positive attitude; that is, a greater acceptance of disabled persons. Because of the importance of exposure to disabled individuals in forming positive attitudes toward the disabled,<sup>58</sup> it would seem that the Allied Health students, who have had exposure to disabled in their academic and clinical education, would have more positive attitudes toward the physically disabled than the Social Work students. The Social Work students

exhibited more positive attitudes according to the ATDP; however, the amount of exposure to the disabled by Social Work students or Allied Health students could not be documented.

There was also a significant difference when a t-test was completed between the male ( $p < .001$ ) and female ( $p < .01$ ) Social Work students and the normative data established by Yaker (see Table V). The Yaker population included many different age groups, education levels and past experiences.

There are four possible explanations for the significant levels between the Social Work students' and the Allied Health students' data and normative data:

1. Yaker has found through various reported studies that increasing educational levels are related to increased acceptance of the disabled.<sup>59</sup> Although some of the Allied Health students were involved in graduate level programs, many were completing baccalaureate programs. In the case of the Social Work students, all were at a graduate level. This may be a contributing factor to the difference.
2. There is a possibility whenever administering an attitudinal test like the ATDP that the respondents reacted more to disability than to disabled persons. Kiesler, et al. noted that responding to an attitude questionnaire might in itself affect an individual's attitude, independent of or in

interaction with the experimental treatment.<sup>60</sup>

Again this is a factor which must be considered, yet difficult to assess in these results. This leads to the factors of varying experiences among the subjects and what kind of disability they have been exposed to.

3. Another possible explanation for the high scores recorded by the Social Work students is the previously described "halo effect."<sup>61</sup> This occurs as physically normal persons tend to rate the disabled favorably on all personality rating scales just as other subjects tend to rate them in consistently unfavorable ways. This is a far less common form of over-generalization but it may have been a factor contributing to the high scores. A group of Social Work students would be more suspect to this occurring because of their service orientation.
4. The final possible explanation lies in the findings of Yuker, that acceptance of physical disability is positively related to acceptance of people who are different from the respondent, including such groups as mentally ill, the aged, and a variety of ethnic groups.<sup>62</sup> Since Social Work students, by their interest in the field of Social Work, demonstrate an interest in these

groups which are most often the recipients of their services, an acceptance of the mentally ill, aged or ethnic groups would lead to acceptance of disabled people. This, indeed, may well be the best explanation for the significant scores recorded by the Social Work students.

These explanations help provide some idea as to why Social Work students in the initial year of their graduate program scored significantly higher than the Allied Health students who had been exposed to the disabled in their academic and clinical training. Based upon past exposure to the disabled, the Social Work students probably should not have scored so high; however, past exposure is only one factor among many which influences people's attitudes. One other important influencing factor is a possible "halo effect," whereby the subjects rate the disabled as consistently favorable on personality scales. Another factor is an acceptance of the physically disabled based on acceptance of people who are different from the respondent.

It was difficult within the scope of this study to examine why the variance existed when the scores were grouped according to age and sex. Again, past exposure may have been one factor among many, but this is difficult to document. The major impetus of this study has been to provide a basic idea of attitudes toward the physically disabled of a select group of Social Work students. With many

questions left unanswered, the following section will provide some recommendations for future study.

### Recommendations

If further ATDP studies were to follow, a recording of any past contact with the disabled would be valuable. It may be helpful if a further study is developed to include a comparison of the future class of Social Work students with the attitudinal results of this study. A comparison of Social Work classes could lead to a more definitive statement about the attitudes toward the disabled of Social Work students at Portland State University.

Other recommendations include an educational awareness program of Social Work students on the problems of the handicapped. A pre- and post-test would be valuable to see if a significant improvement in positive attitudes takes place following this educational program. Another possible study would be comparing the ATDP results of Social Work students with other groups of students such as fine arts or liberal arts who have not made a commitment to service profession. Further studies of Attitudes Toward the Disabled of Social Work students could also include a correlation of the ATDP scales with other attitudinal indicators such as social distance, judgement of performance, and other social interaction activity. Also a study comparing Social Work students with social workers who work with the disabled may

help to explain what effect increased exposure to the disabled has on ATDP scores. Future investigations implementing these recommendations may assist social workers in working with disabled individuals.

This chapter has discussed the results of the Social Work students' ATDP scores and the comparison of these results with the Allied Health students' and the normative data established by Yuker. Included in the interpretations were several explanations for the high ATDP scores. This chapter has also presented several recommendations for future study which may provide new perspectives on the attitudes of Social Work students and social workers toward the disabled. The final chapter will summarize this study and present the general conclusions.

## CHAPTER VI

### SUMMARY AND CONCLUSIONS

A review of the available literature was presented, documenting the existence of social prejudice against the physically disabled. The purpose of this study was to provide descriptive information about the attitudes toward disabled individuals by graduate Social Work students at Portland State University in an exploratory descriptive study. One of the most widely used instruments in measuring attitudes toward the handicapped has been the Attitudes Toward the Disabled Persons Scale (ATDP) developed by Yuker. This scale was completed by fifty-nine first year graduate Social Work students at Portland State University.

The results of the Social Work students' ATDP scores were then compared to the scores of a group of Allied Health students at Rancho Los Amigos Hospital in Downey, California who had taken the ATDP prior to an eight-week program of Interdisciplinary Education. The Allied Health group consisted of students from the fields of Physical Therapy, Occupational Therapy, Social Work, Nursing, Medicine, and Hospital Administration. The scores of the Social Work students were also compared to the normative data established by Yuker.



The results indicated that the first year graduate Social Work students at Portland State University had significantly more positive attitudes toward the disabled than the Allied Health students. It was also noted that the male Social Work students had a more positive attitude toward the disabled than the female Social Work students. This was contrary to the findings of Yuker who concluded after reviewing many studies that females had more positive attitudes toward the disabled than males. In comparing the results of the Social Work students with the normative data for males and females established by Yuker, both the male Social Work students and the female Social Work students scored significantly higher. Upon dividing the Portland State University Social Work students into three age groups, the oldest group, which consisted of thirty years and over, had the highest mean; the lowest mean was the youngest group which consisted of students twenty to twenty-four years of age.

One possible explanation for the high Social Work ATDP scores was past experience with the handicapped or other groups such as the mentally ill, aged or ethnic groups. Yuker had found previously that acceptance of the handicapped was positively related to acceptance of these other groups who are often the recipients of social work service.

In conclusion, this study has shown that first year graduate Social Work students at Portland State University

had a more positive attitude toward the physically disabled than a group of Allied Health students who were at the beginning of an eight-week clinical and educational program. Thus, on the basis of an attitudinal comparison and consistent with the findings of Yuker, which indicate positive attitudes reflect positive feelings, the Social Work students appeared to have more positive feelings toward the handicapped than the Allied Health students. Although the Social Work students scored significantly higher than the pre-test Allied Health students using the ATDP, this is not to say that an educational awareness program designed for Social Work students and aimed at the specific problems of the disabled is not needed. A study using a disabled awareness program preceded and followed by administration of the ATDP would best address the effectiveness of such a program. Also, further studies were recommended with emphasis on comparison of social workers working with the disabled and Social Work students, to help determine the effects of specific exposure to the disabled on attitudes.

This study has helped describe the attitudes toward the disabled of Social Work students at Portland State University, and provided direction for areas of future study.

## FOOTNOTES

<sup>1</sup>Wall Street Journal, "Pressured Companies Decide the Disabled Can Handle More Jobs," January 27, 1976, p. 1.

<sup>2</sup>H. E. Yuker, "Attitudes of the General Public Toward Handicapped Individuals," The White House Conference on Handicapped Individuals, Social Concerns (U.S. Department of Health, Education, and Welfare, Washington, D.C., 1976), p. 17.

<sup>3</sup>U.S. Congress, Vocational Rehabilitation Act (Washington, D.C.: Government Printing Office, 1973), sec. 503.

<sup>4</sup>Oregon, Fair Employment Practice Act., sec. 659-400, 1973.

<sup>5</sup>E. Yerxa, The Effects of a Dyadic Self-Administered Instructional Program in Changing Attitudes of Female College Students Toward Physically Disabled Persons (Boston University School of Education, 1971), p. 3.

<sup>6</sup>J. C. Lewis, "The Handicapped Consumer-Professional Speaks, Living a Meaningful Life Does Not Require Physical Perfection," Journal of Rehabilitation, 40 (1974), 23-25.

<sup>7</sup>C. Kolb, "The Price of Pity," Journal of Rehabilitation, 40 (1974), 23.

<sup>8</sup>B. G. Greer, W. W. Jenkins, and W. W. Flint, "Quasi-Legal Barriers to Adjustment to Disability; Accident and Hospitalization Insurance," Rehabilitation Literature, 36 (1975), pp. 247-50; 258.

<sup>9</sup>N. G. Obe, "Employment of Disabled People," Physiotherapy, 60 (1974), pp. 232-5.

<sup>10</sup>K. Nagy, "Special Human Services are Part of Our Human Concept," Rehabilitation Literature, 36 (1975), pp. 182-4.

<sup>11</sup>Washington State Law Against Discrimination, ch. 49.60, Washington State Human Rights Commission (Olympia, Washington, 1972); Oregon, Fair Employment Practice Act, op. cit.

<sup>12</sup>L. D. Park, "Barriers to Normality for the Handicapped Adult in the United States," Rehabilitation Literature, 36 (1975), pp. 108-11.

<sup>13</sup>R. Kleck, "Physical Stigma and Task Oriented Interaction," Human Relations, 22 (1969), p. 53.

<sup>14</sup>R. Kleck, "Emotional Aroused Interaction with Stigmatized Persons," Psychological Reports, 19 (1966), p. 1226.

<sup>15</sup>R. Kleck, et al , "The Effects of Stigmatizing Conditions on the Use of Personal Space," Psychological Reports, 23 (1968), p. 118.

<sup>16</sup>R. Kleck, H. One, and A. H. Hastroff, "The Effects of Physical Defiance Upon Face to Face Interaction," Human Relations, 19 (1966), p. 431.

<sup>17</sup>E. Goffman, Stigma (Englewood Cliffs, N.J.: Prentice Hall, 1963), p. 139.

<sup>18</sup>R. Barker, B. Wright, and M. Gonick, "Adjustment to Physical Handicaps and Illness," A Survey of the Social Psychology of Physique and Disability (N.Y.: Social Science Research Council, 1953), p. 71.

<sup>19</sup>B. Wright, Physical Disability--A Psychological Approach (New York: Harper and Row, 1960), p. 15.

<sup>20</sup>Ibid.

<sup>21</sup>Ibid.

<sup>22</sup>S. Richardson and J. Royce, "Race and Physical Handicap in Children's Preference for Other Children," Child Development, 38 (1968), p. 468.

<sup>23</sup>S. Richardson, "Cultural Uniformity in Reaction to Physical Disabilities," American Sociological Review, 26 (1961), p. 246.

<sup>24</sup>M. Whiteman and I. Lukoff, "Attitudes Toward Blindness and Other Physical Handicaps," Journal of Social Psychology, 66 (1965), pp. 135-45.

<sup>25</sup>W. Gellman, "Attitudes Toward the Rehabilitation of the Disabled," American Journal of Occupational Therapy, 14 (1960), pp. 188-190.

<sup>26</sup>J. W. McDaniel, Physical Disability and Human Behavior (New York: Pergaman Press, 1969), pp. 18-32.

<sup>27</sup>J. Siller, L. Ferguson, D. Vann, and B. Holland, "Structure of Attitudes Toward the Physically Disabled," Studies in Reactions to Disabilities (New York: N.Y. University, School of Education, 1967), p. 35.

<sup>28</sup>Yerxa op. cit., p. 17; H. E. Yuker, J. R. Block, and J. H. Youngg, The Measurement of Attitudes Toward Disabled Persons, Human Resource Study #3 (Albertson, New York, 1970), pp. 2-18.

<sup>29</sup>J. R. Block, Recent Research with the Attitudes Toward Disabled Persons Scale (Albertson, New York, 1974), p. 111.

<sup>30</sup>Yuker, Block, and Youngg, op. cit., p. 93.

<sup>31</sup>Ibid., p. 81.

<sup>32</sup>Ibid., p. 63.

<sup>33</sup>Ibid., pp. 51-53, 58.

<sup>34</sup>Ibid., pp. 48-49, 58; Block, op. cit., p. 1v.

<sup>35</sup>Yuker, Block, and Youngg, op. cit., pp. 50, 53, 58.

<sup>36</sup>E. Yerxa, Interdisciplinary Comprehensive Clinical Education, Allied Health Special Project Grant (unpublished manuscript, Rancho Los Amigos Hospital, Downey, California, 1975), pp. 9-10.

<sup>37</sup>Ibid., p. 10.

<sup>38</sup>Ibid.

<sup>39</sup>Ibid., p. 36.

<sup>40</sup>Ibid., p. 42.

<sup>41</sup>Ibid.

<sup>42</sup>Yuker, Block, and Youngg, op. cit., p. 22.

<sup>43</sup>Ibid., p. 2.

<sup>44</sup>Ibid., p. 28.

<sup>45</sup>Ibid., p. 34.

<sup>46</sup>J. A. Szuhay, The Development of Attitudes Toward the Physically Disabled (unpublished Ph.D. dissertation, University of Iowa, 1961) "cited by" Yuker, Block and Youngg, The Measurements of Attitudes Toward Disabled Persons, p. 71.

<sup>47</sup>M. G. Knittel, A Comparison of Attitudes Toward the Disabled Between Subjects Who Had a Physically Disabled Sibling and Subjects Who Did Not Have a Physically Disabled Sibling (State University of South Dakota, 1963) "cited by" Yuker, Block, and Youngg, The Measurement of Attitudes Toward Disabled Persons, Human Resource Study #3, p. 71.

<sup>48</sup>J. Siller, "Reactions to Physical Disability," Rehabilitation Counseling Bulletin 7 (1963), pp. 12-16.

<sup>49</sup>J. Siller, and A. Chipman, Personality Determinants of Reaction to the Physically Handicapped II, Projective Techniques (unpublished manuscript, Human Resource Library, New York, 1965) "cited by" Yuker, Block, Youngg, The Measurements of Attitudes Toward Disabled Persons, Human Resource Study #3, p. 72.

<sup>50</sup>M. A. Chesler, "Ethnocentrism and Attitudes Toward the Physically Disabled," Journal of Personality and Social Psychology, 2 (1965), pp. 877-882.

<sup>51</sup>Yuker, Block, and Youngg, op. cit., pp. 78-80.

<sup>52</sup>Ibid., p. 25.

<sup>53</sup>Ibid., p. 28.

<sup>54</sup>Ibid.

<sup>55</sup>Ibid.

<sup>56</sup>Ibid., pp. 48-49, 51.

<sup>57</sup>Ibid., pp. 44-48.

<sup>58</sup>Ibid., p. 93.

<sup>59</sup>Ibid., pp. 51, 53, 58.

<sup>60</sup>C. Kiesler, B. Collins, and N. Miller, Attitude Change: A Critical Analysis of Theoretical Approaches (New York, Wiley, 1969), pp. 66-67.

<sup>61</sup>Barker, Wright, and Gonick, op. cit.

<sup>62</sup>Yuker, Block, and Youngg, op. cit., p. 81.

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## APPENDICES

## APPENDIX A

### ATDP SCALE

FORM A

READ EACH STATEMENT AND PUT AN "X" IN THE APPROPRIATE COLUMN ON THE ANSWER SHEET. DO NOT MAKE ANY MARKS ON THE QUESTION SHEETS.

PLEASE ANSWER EVERY QUESTION

---

1. Disabled people are often unfriendly.
2. Disabled people should not have to compete for jobs with physically normal people.
3. Disabled people are more emotional than other people.
4. Most disabled persons are more self-conscious than other people.
5. We should expect just as much from disabled people as from nondisabled persons.
6. Disabled workers cannot be as successful as other workers.
7. Disabled people usually do not make much of a contribution to society.
8. Most nondisabled people would not want to marry anyone who is physically disabled.
9. Disabled people show as much enthusiasm as other people.
10. Disabled persons are usually more sensitive than other people.
11. Severely disabled persons are usually untidy.

ATDP SCALE (Continued)

12. Most disabled people feel that they are as good as other people.
13. The driving test given to a disabled person should be more severe than the one given to the nondisabled.
14. Disabled people are usually sociable.
15. Disabled persons usually are not as conscientious as physically normal persons.
16. Severely disabled persons probably worry more about their health than those who have minor disabilities.
17. Most disabled persons are not dissatisfied with themselves.
18. There are more misfits among disabled persons than among nondisabled persons.
19. Most disabled persons do not get discouraged easily.
20. Most disabled persons resent physically normal people.
21. Disabled children should compete with physically normal children.
22. Most disabled persons can take care of themselves.
23. It would be best if disabled persons would live and work with nondisabled persons.
24. Most severely disabled people are just as ambitious as physically normal persons.
25. Disabled people are just as self-confident as other people.
26. Most disabled persons want more affection and praise than other people.
27. Physically disabled persons are often less intelligent than nondisabled ones.
28. Most disabled persons are different from nondisabled people.

## ATDP SCALE (Continued)

29. Disabled persons don't want any more sympathy than other people.
30. The way disabled people act is irritating.

## APPENDIX B

Age \_\_\_\_\_

Sex \_\_\_\_\_

### ATDP SCALE

#### ANSWER SHEET FORM A

Use this answer sheet to indicate how much you agree or disagree with each of the statements about disabled people on the attached list. Put an "X" through the appropriate number from +3 to -3, depending on how you feel in each case.

+3: I AGREE VERY MUCH	-1: I DISAGREE A LITTLE
+2: I AGREE PRETTY MUCH	-2: I DISAGREE PRETTY MUCH
+1: I AGREE A LITTLE	-3: I DISAGREE VERY MUCH

#### PLEASE ANSWER EVERY ITEM

(1) -3 -2 -1 +1 +2 +3	(12) -3 -2 -1 +1 +2 +3
(2) -3 -2 -1 +1 +2 +3	(13) -3 -2 -1 +1 +2 +3
(3) -3 -2 -1 +1 +2 +3	(14) -3 -2 -1 +1 +2 +3
(4) -3 -2 -1 +1 +2 +3	(15) -3 -2 -1 +1 +2 +3
(5) -3 -2 -1 +1 +2 +3	(16) -3 -2 -1 +1 +2 +3
(6) -3 -2 -1 +1 +2 +3	(17) -3 -2 -1 +1 +2 +3
(7) -3 -2 -1 +1 +2 +3	(18) -3 -2 -1 +1 +2 +3
(8) -3 -2 -1 +1 +2 +3	(19) -3 -2 -1 +1 +2 +3
(9) -3 -2 -1 +1 +2 +3	(20) -3 -2 -1 +1 +2 +3
(10) -3 -2 -1 +1 +2 +3	(21) -3 -2 -1 +1 +2 +3
(11) -3 -2 -1 +1 +2 +3	(22) -3 -2 -1 +1 +2 +3



Answer Sheet  
Form A (Continued)

(23)	-3	-2	-1	+1	+2	+3	(27)	-3	-2	-1	+1	+2	+3
(24)	-3	-2	-1	+1	+2	+3	(28)	-3	-2	-1	+1	+2	+3
(25)	-3	-2	-1	+1	+2	+3	(29)	-3	-2	-1	+1	+2	+3
(26)	-3	-2	-1	+1	+2	+3	(30)	-3	-2	-1	+1	+2	+3

## APPENDIX C

THE NUMBERS OF THE POSITIVELY WORDED ITEMS  
WHICH HAD THE SIGNS CHANGED FOR  
SCORING FORM A OF THE ATDP

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5	9	12
14	17	19
21	22	23
24	25	29

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# APPENDIX D

## AGE, SEX, AND SCORES OF PORTLAND STATE UNIVERSITY SOCIAL WORK STUDENTS

	<u>Age</u>	<u>Sex</u>	<u>Scores</u>
1.	30	M	121
2.	24	M	113
3.	30	F	128
4.	27	F	102
5.	28	F	162
6.	26	M	128
7.	27	F	129
8.	42	F	129
9.	27	M	130
10.	37	F	95
11.	37	F	141
12.	23	F	114
13.	23	F	96
14.	35	F	140
15.	23	M	118
16.	30	M	89
17.	28	M	165
18.	23	M	112
19.	30	F	90
20.	23	F	133
21.	25	M	142
22.	26	M	158
23.	42	F	162
24.	24	F	123
25.	29	M	100
26.	34	F	165
27.	34	M	147
28.	25	F	105
29.	27	M	140
30.	28	M	93
31.	27	F	117
32.	30	M	152
33.	25	F	91
34.	29	M	149
35.	24	F	110
36.	46	F	164

## Age, Sex, Scores (Continued)

	<u>Age</u>	<u>Sex</u>	<u>Scores</u>
37.	35	F	108
38.	30	M	154
39.	22	M	113
40.	22	F	138
41.	58	F	124
42.	28	M	132
43.	33	M	90
44.	29	F	120
45.	33	F	125
46.	23	M	118
47.	24	F	134
48.	33	M	167
49.	27	M	120
50.	23	F	127
51.	25	F	99
52.	25	F	148
53.	24	F	148
54.	27	M	145
55.	31	F	149
56.	37	F	108
57.	29	M	153
58.	25	F	148
59.	28	F	129
60.	Omit		
61.	Omit		